

The Times and Register.

VOL. XXX. No. 23.

PHILADELPHIA, DECEMBER 7, 1895.

WHOLE No. 900.

Original.

THE LOCAL APPLICATION OF COLD IN ACUTE PNEUMONIA.

(Abstract of Second Collective Report.)

BY THOMAS J. MAYES, A. M., M. D.

Read October 9, 1895, before the Philadelphia County Med. Society.

In the Medical News of June 24, 1894, I presented a collection of fifty cases of acute pneumonia which were treated with ice-cold applications to the chest. Since that time, and especially during the early part of the present year, when through the kindness of the medical press I was enabled to extend a general invitation to the profession for reports of pneumonia cases which were similarly treated, I have received 145 additional reports—making a total of 195 cases. To the medical journals which so kindly published my announcement, and to the medical gentlemen who so courteously and generously responded to my appeal, I take pleasure in tendering my warmest thanks, for it is not saying too much that they are rendering vital assistance in a work which will unquestionably serve to rivet the attention of the profession to a most valuable and indispensable measure in the treatment of pneumonia, of which those who have not seen its effects can form no adequate conception. Furthermore, there is no logic more powerful than that which comes from large numbers, and hence I sin-

cerely trust that every medical man who, in addition to that which is recorded here, has had or will have experience with this mode of treatment will send details of same to me for future publication.*

Of the 145 cases which are comprised in the present collection only 93 are reported with sufficient detail to enable me to tabulate them; close notes of the remainder were either not taken, or were lost after they had been obtained by the observers.

Sex. Among the total number the sex is noted in 143 cases, of which 67 are male and 76 females.

Age. The age is given in 143 cases. The number of cases occurring in each decade is as follows: Below one year (three weeks, six and a half months, and eight months, respectively), 3; between one and ten years, 27; ten and twenty, 34; twenty and thirty, 26; thirty and forty, 29; forty and fifty, 16; fifty and sixty, 2; sixty and seventy, 5; seventy and seventy-five, 1.

Highest range of temperature. This is recorded in 126 cases—48 males and 78 females. The highest temperatures attained in these cases were as follows: In two cases it was 100 degrees; in two, 101 degrees; in three, 102 degrees; in five, 102 1-2 degrees; in nineteen, 103 degrees; in ten, 103 1-2 degrees; in thirty-seven, 104 degrees; in ten, 104 1-2 degrees; in twenty-one, 105 degrees; in six, 105 1-2 degrees; in six, 106 degrees; in one, 106 1-2 degrees; and in four, 107 degrees F.

*Blanks for the report of cases will be furnished by me on application.

The highest average temperature at different age-periods of 125 cases. Below the age of five years there were 14 cases with an average temperature of 104.68 degrees; between five and ten years, 13 cases with an average temperature of 103.84 degrees; between ten and fifteen, 11 cases with an average temperature of 104.95 degrees; between fifteen and twenty, 18 cases, and an average temperature of 104.36 degrees; between twenty and twenty-five, 8 cases, and an average temperature of 104.50 degrees; between twenty-five and thirty, 17 cases, and an average temperature of 103.55 degrees; between thirty and thirty-five, 8 cases, and an average temperature of 103.68 degrees; between thirty-five and forty, 17 cases, and an average temperature of 103.76 degrees; between forty and forty-five, 8 cases, and an average temperature of 104.12 degrees; between forty-five and fifty, 5 cases, and an average temperature of 104.20 degrees; between fifty-five and sixty, 1 case, and a temperature of 104.50 degrees; between sixty and sixty-five, 3 cases, with an average temperature of 104.16 degrees; 1 case between sixty and seventy, and 1 between seventy and seventy-five, with a temperature of 103 degrees and 102 degrees, respectively.

The highest respiratory frequency. This is noted in 55 cases, which may be grouped into the following age-periods: 6 below five years; 3 between five and ten; 6 between ten and fifteen; 10 between fifteen and twenty; 3 between twenty and twenty-five; 9 between twenty-five and thirty; 1 at forty; 8 between thirty-five and forty; 3 between forty and forty-five; 3 between forty-five and fifty; 1 each between fifty-five and sixty; sixty and sixty-five, and seventy and seventy-five.

Days of crisis or subsidence of fever. These are noted in 113 cases, and they occurred as follows: In 8 cases at the end of the first day; in 18 at the end of the second day; in 7 at the end of the third day; in 18 at the end of the fourth day; in 16 at the end of the fifth day; in 13 at the end of the sixth day; in 11 at the end of the seventh day; in 6 at the end of

the eighth day; in 9 at the end of the ninth day; in 1 at the end of the tenth day; in 3 at the end of the eleventh day; and in three at the end of the twelfth day.

Number of cases of single and double pneumonia. There were 108 cases of single and 31 cases of double pneumonia, or nearly four times as many of the former as of the latter. The average highest temperature of the single pneumonia cases was 104.51 degrees, while that of the double cases was 104.62 degrees. The percentage of deaths among the former was 3.70 and among the latter 6.45.

The mortality. Among the 195 cases there were 7 deaths, 4 males and 3 females, or a mortality rate of 3.58 per cent. The oldest of these was seventy-four and the youngest was sixteen years. Three were double and four were single cases of pneumonia. The highest temperature attained among these cases was 104 degrees and the lowest 102 degrees, or an average of 103.23 degrees, there being only an average difference of 0.34 degrees between those who died and those who recovered. The personal history of those who died was as follows:

1. Adult, had a chill ten days before he was seen, and died three days after being admitted. When he came to the hospital he was cyanotic, delirious, and had excessive diarrhea. His pneumonia was double.

2. Aged 37 years, had diarrhea and delirium tremens, and his condition was complicated with chronic lead-poisoning. His highest temperature was 102 degrees.

3. Aged 28 years, an acute exacerbation of chronic pneumonia.

4. Aged 26 years, double pneumonia was admitted four days after the chill. His temperature was 103 degrees and respiration 45; breathing very labored and painful. Died sixteen hours after admission, of apnea. Post-mortem examination showed chronic phthisis in both apices, a cavity, with chronic consolidation around it, in left apex. The lower lobes of both lungs were hepatized, and the middle lobe of right side was in a state of congestion.

5. Sixteen years old, admitted four days after chill with double pneumonia, at which time she had an offensive diarrhea, bloody stools, and hemoptysis, and was cyanosed and in a stupor. Died on the evening of the second day after admission.

6. Aged 74 years, highest temperature 102 degrees. Died on the eighth day. Ice bags were applied from the first to the third day.

7. Aged 40 years, whole of right lung involved. Highest temperature 194 degrees. Ice applied on first and second days. Died on the eighth day.

Comparison of Results.—Whatever opinion we may hold in regard to the value of any treatment, it is quite obvious that in the long run the verdict will favor that one which shows the smallest mortality rate. I am well aware that statistics are often unreliable unless they roll up into large figures, yet I believe that the number of cases which I present for your consideration to-night will form a basis on which to rest an opinion of the treatment here advocated; but before drawing any positive conclusions I will briefly inquire into the results which have been obtained by various other forms of treatment of pneumonia. Dr. Olser reports that out of 1012 cases treated in the Montreal General Hospital 20 per cent. died, and that in the Charity Hospital, of New Orleans, the mortality rate was 20.01 per cent.; of 1000 cases of pneumonia treated in the Massachusetts General Hospital from 1822 to 1889, the death rate was 25 per cent. Dr. Hartshorne states that the mortality rate from this disease in the Pennsylvania Hospital during the years 1884, 1885 and 1886 was a little more than 31 per cent. Louis treated 107 cases, of which 32, or about 30 per cent., died. Grisolle had a mortality of 16 per cent. in 232 uncomplicated cases. Rasori treated 648 cases of pneumonia with large doses of tartrate of antimony, of which about 22 per cent. died. With the same medicine Grisolle lost 18.8 per cent. of 154 cases, and Dietl 20.7 per cent. of 106 cases. During a period of sixteen years previous to 1861 Dr. Huss, of Stockholm, treated

2616 cases, with a death rate of 10.74 per cent. Of 129 cases treated on the restorative plan by Dr. Bennett, of Elinburgh, only four died, giving a mortality of 3.1 per cent. Dr. Hegele, head physician of the Wurzburg Hospital, during 1848 and 1849 treated 40 cases with cold water, without a single death.

Now what conclusions are we to draw from a death rate which varies all the way from 30 per cent. to nothing? Are we to believe that all pneumonics recover under certain methods of treatment, and that a large proportion of them will necessarily die under others? No one would be justified in making quite such a reckless assertion, yet it must be admitted that the truth lies somewhere between these two extremes. But in order to get at something more tangible, let us first find the rate of natural recovery from this disease. What proportion get well under no treatment whatever, and what proportion die under such circumstances? After having ascertained this we will be in a better position to estimate the worth or worthlessness of any treatment. It is very fortunate that this important link has been furnished. In 1844, '45 and '46 Dr. Dietl, a Viennese physician, treated 189 cases of pneumonia practically without medicine, and with a death rate of 7.4 per cent. From 1847 to 1850 he treated a second series of 750 cases, with a death rate of 9.2 per cent. That this represents, at least approximately, the rate of natural recovery from pneumonia is also confirmed by the results of pure homeopathic practice, which may be regarded as equivalent to the let-alone or do-nothing treatment. Thus, out of 94 cases of pneumonia treated in the homeopathic section of Leopoldstadt Hospital in Vienna, 9.57 per cent. died; out of 24 cases of pneumonia treated in the same institution by Drs. Wurmb and Caspar, 12.55 per cent. died; and Dr. Tessier, of Paris, treated 41 cases of pneumonia, homeopathically, with a mortality of 7.3 per cent.

If these figures are reliable, and there is no evidence that they are not, they show that, as a rule, the

natural tendency to recovery in pneumonia is about 90 per cent., and that, therefore, any treatment which is not capable of holding the death rate down to or below 10 per cent. is not only worthless, but actually mischievous. So far as I apprehend this, however, it only applies to an ordinary aggregate of favorable and unfavorable cases of pneumonia, and not to exceptional instances like those which are met in fatal epidemics of pneumonia, or in a large number of successive cases of alcoholic, senile, or latent pneumonia, as may happen in the experience of any medical man with a large public or private practice.

When we come to compare the results of the ice-cold treatment of pneumonia with those which have been obtained from other forms of treatment, it is safe to say that the former are infinitely more satisfactory than the latter. Although Dr. Bennett's figures excel those which are presented in my collection by about one-half of one per cent. it must not be forgotten that his results are entirely over-shadowed by Dr. Hegele's 40 cases, which were treated hydropathically without a single death. Moreover, it must not be overlooked that, so far as my knowledge extends, Dr. Bennett's observations have not been duplicated by anyone on the lines laid down by him; while, on the other hand, this is not the case with the cold treatment; its results in my collection have not been secured by a single individual only, but by as many as thirty-four different observers, among whom are a number who have seen a score of cases, and many more a lesser number in succession, without a single death. This of itself speaks volumes in favor of the method here advocated, for it shows that the personal equation of the practitioner cannot enter very largely into the success of the treatment.

Then again, I express the hope that these statistics will tend to put to rest the mischievous and irrational dogmatism which regards pneumonia as a self-limited disease, like small-pox and scarlatina, and consequently wholly beyond the control and in-

fluence of medicine. Not only is this position refuted by the fact that the death rate in pneumonia when treated by local cold applications is lower than if the disease is allowed to go untreated, but its unsoundness becomes still more apparent when we learn that the cold treatment hastens the appearance of the day of crisis.

Now cold has a marked and decided influence on the pneumonic process, not only in bringing it to a favorable termination, but to materially shorten its course. This abortive power of the ice has been noticed and spoken of by many of the observers in my collection, and I believe that it demonstrates the great value of the remedy more than anything else.

Mode of death in pneumonia, and its therapeutic indications. Now a few words in regard to the tendency toward death in pneumonia. A high fever, high pulse rate, frequent and difficult respiration, extensive exudation, etc., are universally regarded as critical and serious symptoms and conditions of this disease. On deeper examination I believe, however, that these are mere superficial manifestations of grave disorder of the nervous system below, and that the gravity and intensity of each attack are universally related to the degree of resistance which is offered by the nervous system against the ingress of the disease. This is corroborated by the common observation that pneumonia is ushered in by intense nervousness, violent headache, active delirium, local muscular spasm, and general convulsions. Lemaire reports a case (*Centralbl. f. Nervenheilkunde*, 1888, vol. ii. p. 680) in which two attacks of pneumonia were preceded each time in the same individual, the first at the age of 32 and the second at 40, by genuine epileptic seizures, and this in a person who had not been subject before or afterward to the latter disease. The close affinity between pneumonia and diseases of the nervous system is also shown in the almost constant association of the former affection with cerebro-spinal meningitis, and with other acute diseases of the brain and the

upper portion of the spinal cord. That disorder of the nervous system is capable of originating pneumonia is by no means a new doctrine. A few years ago Dr. Hughlings Jackson, in discussing a paper on "Pulmonary Paresis," read by Dr. B. W. Richardson, before the London Medical Society, said that he regarded acute pneumonia as a form of herpes zoster of the pneumogastric nerves (Proceedings London Medical Society, vol. xi. p. 95). Dr. Fernet, in a treatise on "Nerves as a Cause of Acute Pneumonia" (Praktische Heilkunde, 1879, i. p. 18), expresses the conviction that the so-called fibrinous pneumonia is a herpes of the lungs brought about by disease of the pneumogastric nerves. Professor Baelz, in the course of his lectures in the Tokio University of Japan, teaches that pneumonia is a reflex vasomotor exudation neurosis (Centralbl. f. klin. Med., 1888, p. 883). It is thus seen that this line of thought has occupied some of the foremost men in the medical profession.

From this we learn that one of the most threatening dangers in pneumonia comes from a defective supply of nerve force to the lungs. This is indicated not so much by a great frequency of breathing as it is by a frequent and laborious respiration. The patient who lies there moaning with and struggling for each breath, and who complains of pain and distress in the gastric region—the evidence of an over-worked diaphragm—must always be regarded with the gravest concern. Here the tendency toward death is pulmonary exhaustion—a condition sometimes found without very marked extension of the exudation process or much fever, and most frequently in the aged or in those whose nervous systems are overworked or exhausted by alcoholic excess, etc. Equal to the danger of the above condition is the extension of the disease in the lungs. When this covers a large area, as in double pneumonia, there is marked interference with the function of breathing, and the patient tends to die for the want of sufficient aerating surface.

The next in importance are hyper-

pyrexia and a weak heart. It is not necessary to say anything about the detrimental effects of high fever in pneumonia. It is also well recognized that, in virtue of its close affiliation with the lungs, a weak and disordered heart is a constant accompaniment of pneumonia.

The therapeutic indications in the management of pneumonia are, therefore, as follows: (1) Suppression and limitation of the process of exudation; (2) Support of the nervous system and particularly of the pulmonary nerve supply; (3) Reduction of fever; and (4) Maintenance of the function of the heart.

Now what part does cold play in filling these indications? It cannot fill them all, but it covers those of greatest importance. First of all it reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates difficulty of breathing, and gives greater general comfort to the patient. It is capable, however, of doing a great deal more. In virtue of its power to stimulate nerve functions and to contract small blood vessels it promotes the pulmonary circulation, relieves stasis, hastens resolution, and disperses the products of exudation. Strychnine in large doses to sustain respiratory and cardiac innervation; concentrated food of the most nourishing character, like fresh beef juice, milk, brandy, etc., to support the constitution; digitalis to maintain the heart; oxygen by inhalation to relieve the breathing; morphine to produce sleep; ice-cap to the head to diminish restlessness; and strapping of the chest in case of great pleuritic pain, are some of the agents which will fill most of the remaining indications.

PART II.—DR. DANOIS' ARTICLE.

(Continued from last number.)

EXTERNAL ANTISEPTIC MEDICATION IN GONORRHEAL OR OTHER INFLAMMATIONS ALONG THE URINARY TRACTS.

The superiority of this over internal medication is self-evident to any one who has investigated the subject.

Lavage is definite and exact, treatment direct and energetic, without implication of the digestive system or other internal organs. Internal treatment is indefinite in results and may lead to trouble from irritation or severe inflammation succeeding over-dosage by over-action.

Unhappily, however, this line of treatment necessitates the employment of instruments, something always repugnant to the afflicted. It is sometimes painful and not always free from danger. External antiseptics here embraces lavage and instillations. Lavage has been employed in vesical troubles for a long time. It is used for two purposes; one, the least important, is to secure the evacuation of septic products retained at the fundus of the bladder. This is an action purely mechanical. The other consists in injecting materials which destroy those germs that vegetate in the interstices of the bladder. Both together are generally necessary, but we must not lose sight of the fact that simple lavage of warm, sterilized water is often highly useful.

Vesical lavage must be always made with a syringe, and not by an irrigator or syphon, because with this instrument we may gauge with precision the volume of force applied, and not produce such violent agitation or currents within the bladder as will lead to the detachment of the mucous membrane, or even, possibly, rupture.

The quantity of fluid injected each time must be proportioned to the sensibility of the bladder. It is important that the entire walls of the bladder are flushed, but when the vesical muscle is tense from inflammation we must be cautious not to overstrain it and discontinue as soon as pain is felt. A disregard of this precaution may lead to serious consequences. From 100 to 150 grammes may be usually injected with comfort and tolerance. Boracic acid solutions serve

an admirable purpose in relieving pain, and slowly but surely destroying many of the pathogenic microbes. Guyon employs a 4 per cent. solution, and believes that this medicament acts by rather preventing suppuration than as an antiseptic; "is rather a preventive than curative." Mercier first introduced nitrate of silver as a remedy in cystitis many years ago. Its action is remarkable here, particularly in acute cases, when used with care and discrimination. Guyon writes "that of all remedies in suppurative cystitis, this takes the first place."

In order to facilitate the action of the drug it is always well to commence by washing out the bladder with warm water and boracic acid. The American formula is one part of nitrate of silver to 500 of distilled water, though it may be used as strong as 1 per cent. It will be always well to be cautious with this powerful agent, else hematuria stranguary or recrudescence may follow its employment.

The injections may be made every other day until suppuration has ceased.

Instillation of stronger solutions of nitrate of silver may be advantageously employed in urethritis and cystitis; but they should always be preceded by free lavage, injected slowly and in minute doses until tolerance is acquired.

This agent is a most precious resource in this class of cases in producing an antiphlogistic action and relieving pain. Its analgesic action seems positively paradoxical, for though an irritant of great power itself, in the agonizing tenesmus of painful cystitis and in acute gonorrhea its effect is like magic. But like all valuable remedies it has its disadvantages if not used with discretion and in skillful hands. In tuberculosis or neoplastic disease it provokes free hemorrhage and great pain, while, on the contrary, under other circumstances it is a prompt hemostatic. Iodoform, bichloride of mercury and other medicaments have been employed here, but seldom with satisfaction or freedom from danger.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D.,
NEW YORK.

Continued from last number.

PART XII.

**VENOUS ROOTLETS OR VENU-
LAE: THE END OF THE ARTERIAL
CIRCULATION AND BE-
GINNING OF THE VENOUS.—
SUPPLEMENTARY ARTERIO-VE-
NOUS ANASTOMOSIS.**

The venous system is, physiologically, that part of the circulatory apparatus which drains off the residuary blood after it has irrigated the tissues. It then moves it onward to be once more clarified by the lungs, and be sent by the heart on its course through the arteries. Claude Bernard described the blood as "the internal medium, or go-between of elements of the outer world and the tissues." Now the blood has discharged its functions, and enters the afferent vessels, having carried and distributed to the various organs and structures those elements so indispensable for their integrity and vitality. It has been noted that besides the tendinous, ligamentous, cartilaginous and corneal tissues, all purely epithelial structures are avascular. This may be demonstrated in the living current and post-mortem, in those vascular parts, as the papillary layer of the derma, the root sheaths of the hair, and in the cuboidal and columnar epithelia of the sebaceous and sudoriferous glands of

the integument, which have been well injected with glue and Prussian-blue.

In no injected specimen, however, can we differentiate the various vascular structures. All are equally stained, so that we can only attempt to distinguish one set of vessels from the other, by their relative size and the direction which they take; besides it is highly probable that many of the more minute capillaries, which will only admit a mobile, living corpuscle, and are only a 3000th of an inch in diameter, will not permit to pass them a gelatinous mixture of a sesquicyanuret of iron and glue; the former being an active astringent tending to actively coagulate dead, albuminous structures. It is therefore probable that in most, if not all artificially injected and strained specimens, only the large arterioles are opened, and that the arborescent arrangement so beautifully clear in certain preparations for the microscope the territories of vessels, deeply stained, are chiefly arterial, with some of the larger capillaries only.

It has been pointed out that there are many direct connections between the microscopical arteries and veins, so that it can be demonstrated that there is a considerable quantity of the arterial blood, sent directly into the veins without entering the finer capillaries at all. What the exact proportion is has not been estimated, though it no doubt is considerable. And we find that according to the late researches of M. G. Gerard, of Lille, there are numerous interconnecting canals between the larger arterial trunks and veins. (*Sur l'Existence des Canaux-Anastomotiques Arterio-Veineux*, Archives de Physiologie, Normal et Pathologique, November, '95.)

This author's observations do not fully conform to those of Bernard, Muller, Sucquet, Hoyer and Bourceret, who claimed that there existed a supplementary circulation or connection. (*Sucquet Circulation Derivative dans la tete et dans les membres chez l'homme*, Paris, 1812.)

Arterio-venous anastomosis, Gerard alleges, is comparatively common in the groin, between the femoral-vein and the artery, between the axillary-

artery and the vein in the vessels of the head and the thorax, and even between the cava and aorta. They are not so commonly seen in the adult, though he has discovered them sufficiently often between the large trunks to warrant the belief that their presence in various situations is quite general in all, except those in very advanced years. He has found these connecting channels of communication in the most divers situations and particularly frequent at the flexures of the limbs, and in one instance found a short trunk of large calibre directly connecting the popliteal-artery with the vein. In fourteen subjects, infants who died before the fifth day after birth, Gerard discovered the following veno-arterial communications direct:

In the groin.....	5 times
In the axilla.....	3 times
In the popliteal space...	4 times
At the elbow	3 times
Between the aorta and vena-cava	1 time

—
16 Anastomoses

These vascular communications in the adult, though frequently demonstrable, are indefinite and variable.

Morphologically, this complimentary vascularization is interesting to note, particularly as we witness it in the larger trunks; inasmuch as it is a derivation very generally present in some of the lower order of the vertebrates and amphibia.

The precise role, innutritive processes, which it plays is yet rather a desideratum. Being most commonly witnessed over the articular areas, structures greatly exposed and the centres of active function, it may be that the accessory vessels, in some unknown manner, provide the increased pabulum so often required when the joints are actively exercised.

It may be, too, that as the vessels at the flexures of joints are exposed to great strain and injury in various movements of the limbs, those connecting vascular links permit of an escape-current from one set of vessels to the other, and in this manner save the bore of the vessels from an over-strain.

Relating to the capillary current,

we once more turn to that division of the circulation wherein hypothesis must make way for ocular demonstration, at least as far as the corpuscular circulation is concerned, for we have good and sufficient reasons for believing that the plasma and colorless lymph freely circulate through tufts and planes of epithelial and other histological elements, in some sort of an orderly arrangement quite impossible to conceive of, independent of a tunneling of the route which those fluids follow. Indeed, Bernard and other physiologists contemporary with him believed that there was a circulation independent of the sanguiferous or lymph, which they designated the "nutritive." Probably further researches will disclose more facts in connection with this important topic, for in no branch of medical science is more rapid progress being made in our time than in physiology. Its advances during the past twenty-five years have been phenomenal, and from every part of the world later revelations are coming forth.

We now have traced the blood-corpuscles as they were sent with a rush into the arterioles, in intermittent jets, to be then sent on, through vast ramifications of the capillaries, where they maintain an active but rather regular motion, until they approach the venulae, when their color deepens and their movement slackens, and, as we trace them further, their outline is lost, when, like clouds of smoke surcharged with carbon, they enter the thick-walled vein and are lost to view.

(To Be Continued.)

GONORRHEA IN WOMEN.

In gonorrhea urethral and vesical irrigation should be made with a solution of potassium permanganate, 1 per 1000 to 1 per 2000, according to the case. The quantity at each irrigation should be at least one litre. The irrigation should be practiced every day, the usual duration of treatment being from ten days to two weeks, or thereabouts.—Cumston, N. Y. Med. Record.

The Times and Register.

Weekly Journal of Medicine and Surgery.

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BOSTON, MASS.

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PHILADELPHIA, PA.

PUBLISHED BY

The Medical Publishing Co.,
No. 718 Betz Building, Philadelphia, Pa

Subscription Price, . . . \$1.00 Per Year.

Send money by bank check, postal, money or express order, payable to The Medical Publishing Co.

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All business communications should be addressed to
No. 718 Betz Building, Phila., Pa.

Entered at the Philadelphia Post Office as second-class mail matter.

PHILADELPHIA, DECEMBER 7, 1895.

HAS GONORRHEA A SPECIFIC MICROBE?

To the practitioner who is rather concerned with effects than causes of diseases, rather what will speedily cure his patient than an obtruse or merely physical speculation, this may seem an unimportant question. However, we can all understand that in our time of precision in diagnosis, and from a forensic standpoint, it is of the greatest importance that this should be definitely settled.

If it be said that a red-hot clap, the *chaude de pisse* of the French, can only succeed after an infection by a specific germ, or if it be maintained that a suppurative urethritis in an otherwise healthy individual is not infective, contagious nor venereal, then we must most certainly take issue with those who promulgate this view.

It is a well-known fact that, although a specific bacillus commonly is found in certain varieties of pharyngitis in diphtheria, as described by Brettoneau, who first gave putrid sore throat this designation, it may not be present at all. Then we are told a "mixed infection" is present. Diphtheria has become an exceedingly common disease, since every type of sore throat with a *Loefflus* germ present is so labeled by the bacteriologist. On the contrary, with gonorrhea, though the infection never was more general, no case is now so branded unless bacteria are forthcoming in a case possessing certain definite morphological characters; therefore, the preposterous assumption is made that no matter how violent may be a patient's chordee, his vesical tenesmus or strangury, how abundant the discharge of greenish-yellow matter, he has no clap, unless we find the diplococcus of Neisser, arranged in a certain manner within the pus corpuscles. He has only "non-specific urethritis."

The late Professor Charles A. Budd used to relate to his class, as an illustration of the impossibility of gonorrhea without direct impure contagion, how a clergyman once came to him in great distress over an accidental (?) attack of clap, and, anxiously inquired if it were not possible for him to have become so infected in a water closet. To which Budd, in his usual brusque manner, replied: "Most certainly if you had a woman in there with you."

Vierordt and others, who have made this subject a special study, say that a diplococcus quite identical with the gonococcus may be found in the healthy urethra. Probably the truth is that the so-called specific microbe of gonorrhea is a cause, or an incident only, in certain types of the dis-

case. At all events, it is of no consequence in the treatment, though some modern writers would have us believe that the infection of gonorrhea works widespread destruction in the neighboring parts, if not early and radically treated.

From a medico-legal standpoint we must be cautious not to attach too much importance to the presence or absence of Neisser's microbe. The latest observations on this phase of the question are inconclusive and discordant, and fail to provide us with such definite data as must be forthcoming to establish the innocence or guilt of a suspected party.

RHEUMATISM.

At this time of the year, with its variable atmospheric conditions, people of rheumatic tendency are especially apt to be tormented with pains and aches in the joints and muscles. The discomfort thus experienced is often out of all proportion to the severity of the trouble, and the sufferer may be prevented from attending to his usual avocation, or even from dressing himself. He finds himself practically helpless in many instances, and experiences more actual distress than a person suffering from far more serious disorders. The affections known as lumbago and muscular rheumatism are essentially of rheumatic origin, and, in order to successfully relieve them, it is not sufficient to rub the affected parts with liniments, but it is far more important to administer a drug which will attack the root of the trouble. For many years physicians relied upon salicylic acid for this purpose, but, while this remedy proved effective, it was not free from serious effects upon the heart and nervous system. A new substance, known as Salophen, has been recently introduced in Germany, which possesses all the good qualities of salicylic acid and has the great advantage of being absolutely free from risk. It is pleasant to take, does not upset the stomach, and relieves the feverishness, pains and stiffness in the joints and muscles with remarkable promptness, sometimes even in a few hours. Salophen should be given to adults in 5-10

grain doses, every two or three hours, according to the severity of the symptoms, and should be continued at longer intervals three or four times daily, for a day or two after relief has been experienced, to prevent the return of the disease.

APOLYSIN: A NEW ANTIPYRETIC AND ANALGESIC.

Drs. M. von Necki and J. von Jaworski, in the London Therapist of October 15, give an interesting account of this new preparation: Apolysin is nearly related to phenacetin, with this difference, that instead of being an acetic acid derivative of parphenetidin, citric acid takes the place of acetic acid. Apolysin is a yellowish taste, though not so distinctly acid taste, though not so distinctively acid as citric acid itself, which dissolves in cold water in the proportion of 1 to 55, and in hot in any proportion. It melts at 72 degrees centigrade. In other respects apolysin closely corresponds in chemical behavior to phenacetin.

Present knowledge of pharmacodynamic relations indicated that apolysin from its constitution would be non-poisonous, split up into parphenetidin, ethyl and citric acid in the organism, producing a reduction of temperature and analgesia, and the phenetidin eliminated in the urine in the form of a glycuronic or sulpho compound.

The absence of toxic properties in apolysin was proved by experiment on frogs and rabbits, 1, 4 and 8 per cent. aqueous solutions being gradually injected in the proportions of one-half to 4 parts apolysin to 1000 parts animal body-weight. The frogs as well as the rabbits bore the injections well and without any disturbance to the health or general condition. The products of the decomposition of apolysin were found in the urine of the rabbits combined with sulphuric acid. The urine possessed the same behavior towards reagents as after the administration of phenacetin. Compounds of glycuronic acid could not be discovered.

Before administration of apolysin to fever patients its antiseptic action was first tried on animals. For this

purpose two rabbits were taken, in one of which diphtheritic toxine, in the other a pure cultivation of pyrogenous streptococci was injected. The temperature of the animal inoculated with toxine rose after three hours to 39.6 degrees C., and on the afternoon of the second day to 39.9 degrees C., 1 c.c. of a 10 per cent. aqueous apolysin solution was injected. The temperature rose in the evening to 40.5 degrees C., but on the next day the morning, afternoon and evening temperatures were 40.1, 39.5, and 39.2 degrees C. respectively, and on the fourth day at the same hours, 39.5, 39.1 and 39.0 degrees C. The second animal inoculated with pyrogenous culture exhibited a temperature of 40.3 degrees C. in the evening, and the next morning at 40.1 degrees C., 1 c.c. of a 10 per cent. aqueous apolysin solution was injected at 11; at 12 o'clock the temperature fell to 39.4 degrees C.; at 3 o'clock, 39.3 degrees C.; at 7 o'clock, 40.2 degrees C., and 9 o'clock, 40.1 degrees C.

Progressing to clinical observations, apolysin has been employed for the purpose of testing its antipyretic and analgesic properties in the following cases: Four cases of croupous pneumonia, 1 case of scarlatina, 1 case of abdominal typhus, 13 cases of influenza, 2 cases of puerperal fever, 1 case of pyemia, 5 cases of angina follicularis, 1 case of facial erysipelas, 3 cases of hemicrania, 2 cases of sciatica, 7 cases diagnosed generally as cephalalgia, 3 cases of neuralgia nervi trigemini, 1 case of neuralgia cervico-occipitalis, and 2 cases of neuralgia plexus lumbalis. The apolysin was generally administered alone in powder form, in doses of 15 grains three times daily at intervals of an hour, and only in a few cases was it combined with bromides, and twice with caffeine salts.

From these investigations and clinical observations the following conclusions have been determined: Administered internally, apolysin has an antithermic action on fever patients, and, simultaneously with the fall of temperature, brings about the disappearance or abatement of quite a series of symptoms, especially painful symptoms.

In neuralgias, apolysin has an analgesic action, diminishes hyperesthesia, shortens the duration of single attacks and often causes the symptoms to disappear entirely.

Thanks to its chemical constitution, apolysin acts quickly and safely, and, as far as the observations have been conducted, does not cause any unpleasant symptoms.

The administration of apolysin is contraindicated on empty or fasting stomachs, or where there is an excess of acid secreted.

Apolysin is easily soluble, and is therefore more quickly absorbed, and more reliable in its action, than phenacetin, and similar remedies.

Apolysin is practically non-toxic, and, consequently, can be given in large doses in order to produce analgesic and antipyretic effects rapidly, without danger of bye-effects. Herein lies the principal advantages of apolysin.

Electro-Therapeutics.

IN CHARGE OF

DR. S. H. MONELL, Brooklyn, N. Y.

FARADIC ELECTRICITY IN APPENDICITIS.

Miss F. T., age 20; highly cultured and accomplished; delicate organization and nervous temperament; suffered from habitual constipation.

On the 14th of last March this young lady began suffering from severe pain in the abdomen, elevated temperature and occasional vomiting; bowels costive. She continued to grow worse under the domestic remedies used by the family, until the morning of the 17th, when I was requested to see her. The features were pinched, there was decided tumefaction, swelling and tenderness in the region of McBurney point; there was irritability of the stomach and complete anorexia, with dry surface and a temperature of 102. On a direct line from the superior crest of the ilium to the umbilicus about midway was a well defined tumor easily outlined with the finger tips and as large as a small orange; moderate pressure gave much pain; the

area of tenderness extending some inches beyond and around the tumor. To unload the portal circulation and secure a thorough evacuation of the bowels I gave small doses of the mild chloride of mercury, and ordered a saturated solution of salts and glycerine enemata, to be given in 12 hours. Hot stupes were to be constantly applied day and night. To relieve nausea and quiet pain, ordered creosote, salicylate-Bismuth, chloroform water and codeine. The pain being constant this was continued for several days. All food was proscribed except iced buttermilk. To induce sleep trional in fifteen, thirty and finally sixty-grain doses, by enema, at night was given with very satisfactory results. The bowels responded well to the calomel and enema, with copious actions, but no improvement followed. The peritoneal tenderness continued to extend in a downward direction, until it reached Poupart's ligament on the affected side, involving the uterine adnexa, bringing on a premature menstrual flow. The hot stupes and other treatment, omitting the mercury, was continued until the 20th, without any improvement. Notwithstanding daily movements from the bowels, there was no reduction in the size of the tumor, showing it was not of a stercoraceous nature. The stomach now began to rebel against all medication, and I realized, much to my chagrin, that I was soon to lose it as a medium for any further medication, and would be driven to the hyperdermic method as a dernier resort. Encouraged by my experience with faradic electricity in a former case of appendicitis I determined to at once avail myself of whatever good I could secure from it. Having one of the most improved high tension machines in the office, I ordered it sent over, and placing a large wire gauze electrode, well padded with flannels and wet with warm water over the entire area of abdominal tenderness, I connected it with the positive pole; a negative electrode, ten by twelve inches, was placed under the buttocks and a current from the 36 wire, 4500 feet in length, was turned on. The interruptions were the most rapid that

could be had from the machine, and the current made barely perceptible to the patient. I personally supervised the first application, which lasted one hour, and ordered it used one hour in every four. Some degree of comfort was experienced from the first application and no persuasion was necessary to induce her to continue the applications. The hot stupes were ordered continued in the interval between applications, but as they had all along been attended with some discomfort, the patient declaring the nausea was aggravated by their use, I gave my permission to withdraw them. Within twelve hours the anodyne effects of the current became so manifest the young lady begged me to stop all treatment but the battery, and insisted that her stomach would not tolerate any more medicine. Having great confidence in the faradic electricity, I granted her request, and no medicines were given, nor local applications made other than the battery until convalescence was established. The seances were continued one hour in every four, from early morning until 10 P. M., and a few nights between 10 P. M. and 6 A. M. The applications were continued uninterruptedly until April 4, with slow but gradual improvement, when I pronounced her convalescent. The temperature remained elevated one or two degrees during the entire time, and the outlines of the tumor could be clearly made out with the eye alone. The temperature was now normal, the nausea gone; the tongue moist; the tenderness had disappeared, and the cold feet, from which she had suffered all along, requiring hot dry applications grew warm, and the bowels, heretofore requiring an enemata of salts and glycerine every other day, responded naturally.

A very material point in this case was the happy response of the bowels to the enemata, given every other day, for the relief of tympanitis; following each enemata, was a copious bilious discharge, showing I was not dealing with a stercoraceous form of appendicitis. It now occurred to me that if I would continue my applications, using a more stimulating cur-

rent, I might by subduing the subacute condition left by the acute attack and which, in my opinion, may explain their liability to recurrence, protect my patient against a recurrence, so the applications were continued, using the 32 wire, 2400 feet, for thirty minutes—at first three times, then twice daily, with slower interruptions, reducing the size of the electrodes and gradually increasing the strength of the current with each day's applications. Great caution is necessary in treatment during convalescence from acute inflammation, with this current, or you will over-stimulate, just as you can do with alcoholic stimulants in typhoid fever. Once or twice during the convalescent treatment of this case I had ample warning to reduce the strength of my current, and on two occasions deemed it best to return to the fine wire with rapid interruptions—hence the necessity of having an instrument with coils of different size and length, and with rapid and slow interruptions. One fact is worth a dozen theories, and that there is a material difference in the effect of coils of different size and length, and with rapid and slow interruptions, no one with a practical knowledge of faradic electricity will deny. The applications were continued in this case until the 13th, when all treatment was suspended. The young lady at this writing is in the enjoyment of her usual health, and was able in July and August to spend her vacation in the mountains of Tennessee. I shall continue to watch this case and note her susceptibility to a recurrence. Two years ago I was called in consultation to see a similar case, not however, as typical, yet well marked, that had been under the attending physician for five days, and continued to grow steadily worse under the ordinary treatment. The pain in this case could not be controlled with hypodermics of morphine pushed almost to the degree of narcotism. I advised the use of faradic electricity—used as indicated above, with decided improvement in thirty-six hours, and a cure in six or eight days. Within twelve hours half the quantity of morphine before given

gave the patient comfort, and the quantity was daily reduced and soon withdrawn. There has been no recurrence in this case. The number of cases treated are insufficient to predicate an opinion, particularly as a large per cent. of primary cases recover any way, but the first case was unquestionably not only typical but severe, and the result was so satisfactory that I shall again use it should an opportunity present. No broad-minded physician would contend that faradic electricity can supersede the surgical methods found necessary in a large per cent. of their cases; but that a certain per cent. can, if seen early, be favorably modified and relieved without operative interference is not only possible but probable. In this class of cases faradic electricity has much to commend it. Antagonizing no other medication, easy of application, far-reaching in its effects, as its inter-polar action gives to it a power supremely above the ordinary topical applications, such as blisters, poultices and stupes, that only act as revulsants, and in small degree modify engorgement of the deeper structures by inviting the blood to the superficial channels. No one ever claimed more than this for them. How powerless when compared to the physiological effects of faradic electricity. Lastly, let me be understood as claiming only that faradic electricity is a valuable adjunct to the means already recognized for the treatment of disease, and demands more recognition than the profession are disposed to accord it. It cannot supersede medicine, nor can it take the place of surgery, but, like both, has a sphere where it can be used to advantage.

I have no patience with hobbyism whether used in connection with electricity medicine or surgery. It is foreign to the well-trained professional mind, ruinous to the physician who embraces it, and stamps the rider as one who is professionally unbalanced and a hindrance to progressive medicine. While this is true, there is, I regret to say, too much prejudice cherished, and too much abuse bestowed by the profession at large on those who have the courage of their

convictions, and dare to work in the rubbish, where in the past history of medicine many brilliant jewels have been found. Fashion in medicine, as elsewhere, reigns with arbitrary power, and a dread of its lash deters many from entering unexplored fields in search of new material. It has always been, and will continue to be so. As professional men, on whose wisdom, mature judgment and correct conclusions hang the destiny not only of the living, but of the millions yet unborn, it becomes us, if true to our trust, to lay aside prejudice, encourage investigation, and utilize any and all means that give hope of relief to suffering humanity. More than this cannot be demanded, less than this makes us recreant to a most sacred trust. No prophetic mind is necessary to discern the dawn of a new era, and with its advent will come greater success in medicine. I refer to the constantly increasing interest of the profession in the pathology of disease. It has on the profession today a stronger hold than ever before. Its first benign effects will be to revolutionize the treatment of the febrile state. Enlarged views on the pathology of fevers will sound the death knell for the present fashionable antipyretic treatment, that has no foundation in fact, is a delusion of the doctors, and hurtful to the patient. Not a decade hence the physician will recognize as a cause for febrile reaction some ptomaine, some ferment or some septic element in the circulation, and address his treatment to arrest, if possible; then to eliminate the noxious principle and finally fortify against its encroachments.

O. L. WILLIAMS, M. D.
Dallas, Tex.

In their essay upon Ectopic Gestation Cole, Jarman and Grandin say in regard to passing "powerful currents" through inflamed masses: "That any bad result has ever followed the use of the faradic current, even in cases of pus-tubes, has not been shown; neither has it ever been demonstrated that the faradic current has even caused suppuration in an inflammatory mass which did not

contain pus." Nor could it be expected to do so unless it conveyed into the mass the pyogenic microbe. Galvanic and faradic applications are usually suspended when we meet pus, for the reason that it needs to be evacuated and got rid of, but the mild, sedative faradic application employed by Dr. Williams does not seem to be open to any objection which may have been raised against "powerful" currents by other writers. In cases of appendicitis with treatment restricted to medical procedure, the use of faradic sedation will, of course, neither prevent nor interfere with the most approved means of treatment at the physician's command nor with surgical aid should consent to it be obtained. This is an important point in its favor, and when coupled with the fact of complete harmlessness when applied as directed it would appear to warrant sufficient test to establish its value in this disease. My own personal observation and experience tend to confirm Dr. Williams' conclusions, and if others who may have had opportunities to employ faradic sedation in similar cases will report their results to the "Times and Register" they will very gladly be published for the advancement of electro-therapeutics. —Ed.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

HERNIA: RESULTS OF EXAMINATIONS IN 10,000 CASES OF HERNIA, MADE DURING THREE YEARS.

BY M. BERGER, Le Mercredi Med.,
Oct. 20, '95.

From February, 1881, to same month in 1884, this author saw and examined at the "Bureau De Relief," in Paris, 10,000 cases of hernia, entered there for the treatment of this infirmity.

There were 7433 cases in males and 2567 in females. Inguinal hernia was present in 96 per cent. of males; 6.02 men this type was bilateral; the females, 4.166.

Inguinal hernia appeared on the right side about twice as often as the left; 476 were congenital. Crural hernia was present in 6.60 of all. In women, femoral hernia was present in 37.10—less frequent, however, than the inguinal, in the proportion of 1 to 1.35. The co-existence of crural and inguinal hernia was as frequent in one sex as the other.

Umbilical hernia contributed 5.46 of male herniae, to 27.34 in women.

Hernia through the median line and epigastric hernia were found much more commonly than is generally supposed—about one-half.

In the department of the Seine hernia was present in a ratio of about one in every 14 males, and one in every 44 females. The frequency of hernia varies with age, certain types prevailing at one epoch of life with greater frequency than another. In the first year inguinal hernia is most common; then it recedes in a large number, and is less frequent at the twenty-fifth year. From that age, for twenty or twenty-five years it is less frequent; then, after 50, all varieties are once more numerous. As to the complications and dangers of hernia, they are altogether more frequent in women than men in the proportion affected.

PUNCTURE OR INCISION OF THE PERICARDIUM IN PERICARDIAL EFFUSIONS.

BY M. M. DELORME AND MIGNON

For more than two centuries the question of incising or puncturing the pericardium in diseased conditions has been discussed. Riolan, the distinguished contemporary of Harvey, in 1746, practiced and recommended it. Desault and Larrey, in the beginning of the nineteenth century, revived it. It is now something more than fifty years since Schuh, of Vienna, first successfully performed paracentesis, with a trocar for pericardial effusion. After this, evacuation by puncture was generally preferred, although Trousseau strongly recommended evacuation by incision.

But the results of operations were not satisfactory. The surgeon was called in late, the patient was in an

enfeebled state; infection set in about the incision, and little benefit followed. Then Beizeau raised his voice against it; the alarm spread, and the operation was cast aside as of questionable value.

The anatomical difficulties in the way are much greater than are generally supposed. Hence, one must not be led into error by assuming that the same general relations obtain in the living that we would be led to suppose exist by a dissection on the cadaver. The heart is in motion; with each inspiration there is a sinking of the diaphragm and an overlapping forward of the pericardium by the parietal pleura. The relations of the left pleura with the thoracic wall are much greater than is generally set down in anatomical text books. The sterno-perichondro-pericardical area selected for incision in these cases is a highly vascular centre, deeply lodged under a dense, firm shield of structures.

With the safeguards which modern surgery provides, paracentesis for pericardial effusions has become a safe and valuable procedure in the hands of a skilled surgeon.

We should, however, neither advise nor practice it except under certain definite special circumstances. First, not until active medication, local and general, have failed; second, not before such great exhaustion has set in as to render doubtful reaction after operation.

In all cases when such symptoms of pyrexia set in as point to a purulent transformation of the serous fluid, a cardiac paralysis is threatened by hydrostatic pressure.

Intense dyspnea, quick, irregular pulse, deep cyanosis, a persistent, dull pain over the heart, with a restless state, indicate urgency.

We will usually find a surface edema of the integument over the precordia. Digital pressure over the intercostal space on the left side evokes pain also, over the course of the phrenic nerve.

In the child there is a vaulting of the ribs over the heart, but costal ossification prevents this in the adult. Percussion and auscultation point to the direction and extent of effusion.

This area varies considerably, according to the decubitus of the patient. Partensky has noted in some cases that the great distension of the the pericardium often renders deglutition painful or impossible by pressure on the esophagus. This symptom immediately passes off after the excess of fluid is drained away.

The question has been raised, "If, after the first evacuation of pericardial fluid, followed by relief, is it proper, as with the pleura, to repeat theappings, or make an incision into the pericardium?" In our judgment there is little analogy between the pleura and the serous investment of the pericardium. Nevertheless, in some cases it is the proper course to pursue. We have knowledge of 25 cases treated by repeated aspiration. In five, a free incision was made, four recovering. Of the other 20 treated by aspiration only, 18 died—*Revue de Chirurgie*, No. 10, Oct., '95.

Note by translator.—The author enters at considerable length and with great fullness on the details of the anatomical topography, with illustrated plates and descriptive text.

T. H. M.

THE ORIGIN OF THE STITCH ABSCESS.

(Beitrag zum Centralblatt für Chirurgie, No. 27, 1895.) By Dr. C. Lanenstein, of Hamburg.

The author's attention was attracted to the study of this matter by the observation of infection occurring after aseptic operations, which could only be explained by supposing the infection to be due to suture or ligature material. Consequently, he instituted bacteriological examination in the cases of 216 specimens of sutures and ligatures. In these 216 specimens he found 64 which contained bacteria that were capable of development. The majority were *Bacillus subtilis*, which was found in different culture media, including gelatin, glycerin, agar, bouillon, blood serum, and alkaline albuminate. He also found the *Micrococcus tetraginus* and the *Staphylococcus albus*. The author comes to the following conclusions:

1. Clinical observation teaches that cases of suppuration occur which have their origin in the catgut employed in the wound.

2. It cannot be said for certain in any individual instance that the catgut has been the bearer of the infection.

3. It is nevertheless certain that the so-called sterile catgut of the shops contains germs capable of development.

4. So long as this is the case, the catgut cannot be free from the suspicion of having given rise to the infection of a wound.

In the discussion which followed, Kocher, of Bern, said that since 1888 he had used silk in his enucleations of goitre. This can be absolutely sterilized either by dry or moist heat, an impossibility with catgut. In referring to his cases he had only 35 per cent. heal by primary union while he used catgut, while 85 per cent. healed in that manner since he began to employ silk. Kocher believes that the suture material should be not only aseptic, but also antiseptic, and has, in consequence, during the last winter kept it in a solution of arsenious acid, with the result that he has, in 35 cases in which it was employed, secured absolute primary union.

THE RADICAL TREATMENT OF HYDROCELE BY THE INJECTION OF IODINE, AND ITS FINAL RESULTS.

(Beitrag zur Klinische Chirurgie, Heft 3, Band xiii., 1895.) By Dr. Spahinger.

After a careful comparative study of the methods employed for the radical cure of hydrocele, both by incision and by the injection of iodine after puncture and withdrawal of the fluid, the author comes to the conclusion that, in every case, that operation is to be performed which produces the least functional derangement, which has the shortest course, and which has the least chance of unforeseen complications.

Puncture with the injection of iodine, he believes, fulfills these conditions more nearly than any other method, although it has a greater

percentage of relapses. It should be used in all normal cases, the operation by incision being reserved for persistent and complicated cases.

The author bases his opinion on results obtained in the Zurich clinic. Of 70 cases treated, 48 were injected with iodine; 30 were cured, five relapsed, and 13 were not heard from later. The average length of time in the hospital was fourteen or fifteen days. Of 17 cases treated by operation 12 were cured. No relapses were seen, although five cases were not heard from. The time spent in the hospital was, however, on the average from 38 to 42 days.

THIRTEEN FEET OF INTESTINE TORN AWAY.

A few weeks ago I was called to see a lady who had either performed an abortion on herself, or some one had done so for her. The fetus had been delivered, but the placenta remained in the cavity of the uterus. A physician was called, who discovered something protruding from the os, and, upon investigation, found it was an intestine. There was considerable hemorrhage and very severe pain, with the prospect of speedy death. I found the pulse and respiration very rapid and a profuse hemorrhage from the vagina. As soon as possible I opened the abdomen, and found the uterus about the size of a five-months' pregnancy and very soft, the abdominal cavity quite filled with blood. Upon lifting the uterus out I discovered, on its posterior surface, an opening, through which passed a loop of small intestine. This I immediately withdrew; its mesentery had been stripped entirely off. One end of the intestine had been torn from its attachment to the cecum. I inserted my finger into the cavity of the uterus, and, finding the placenta, delivered it, enlarging the opening. I cut off the intestine at the point where the mesentery stopped, making a lateral anastomosis with the cecum on the opposite side. I then closed the wound. Thirteen feet of the intestine had been drawn through the opening in the uterus. The patient died at 12.30 A. M., one remarkable feature being that she

survived the injury and subsequent operative procedure over eight hours. —Dr. C. B. Nichols, in Occidental Medical Times.

BURNS TREATED BY STRONG CARBOLIC ACID.

Dr. Benjamin H. Brodnax, of Broadnax, Louisiana, write to the Popular Science News as to above bold line of treatment of burns and scalds: "Take pure, undiluted carbolic acid; with a feather or fine brush paint the burned or scalded surfaces, extending a little over the edge, where the wounded surface is not bare. Pain instantly ceases, and if care is taken no other dressing is required but a light tissue of lint cotton, and one roll of bandage will insure from contusions, etc." Dr. O. H. Allis, who read the original article, sent him by myself, before the Philadelphia County Medical Society, March 10, 1894, remarked: "To my mind it is one of the boldest ventures in all surgery. To think of applying to a raw and agonizing burn that which would scald a healthy cutaneous surface would seem to the unreflective mind a reckless and cruel act. But when we consider that a raw burned surface is painful from its exposed nerve filaments, and that the strong acid, combining with the albumin of the tissues, forms a coating that excludes the air, while at the same time it benumbs—paralyzes—each terminal exposed filament, the remedy seems to be the result of a happy inspiration."

DISAPPEARANCE OF TUBERCULOSIS OF THE PERITONEUM AFTER OOPHORECTOMY.

Wahlstrom (Nouvelles Archives d'Obstet. et de Gynec., September 25, 1895) publishes another interesting example of this singular clinical phenomenon. On January 29, 1892, the appendages of a woman, aged 27, were removed. It was then discovered that there was extensive tuberculous peritonitis especially towards the pelvis. The patient regained her health after the operation. But empyema set in, and she was tapped on October 7, 1893. She died on November 23. The pelvic viscera were found free and

covered with a smooth, shiny serous coat. Higher in the abdomen there were adhesions. The empyema communicated through the diaphragm with a fistulous opening in the abdominal cicatrix.

Gynecology and Obstetrics.

HEREDITY OF TWIN BEARING.

Von Speyer (Mittheilungen aus Klinik und Med. Instituten der Schweiz., 1st Series, Part 11, 1895) detected hereditary tendency in eight out of a series of twin bearers under his observation during the past ten years. In one patient it was found that four generations in her family had borne twins. In several the twins showed feeble vitality and died almost simultaneously soon after birth. Twin bearing does not seem particularly related to the prime of the generative period, nor to its earlier or later stages. In some families already blessed with twins, triplets and quadruplets were born. These rarer forms of multiple pregnancy are undoubtedly hereditary.

MISSED LABOR.

Stahl (Der Frauenarzt, October, 1895) relates a case in which he feels sure that labor was missed, and where he afterwards induced a kind of secondary "premature labor," as he terms it—or, in more usual terms, he delivered a fetus which the uterus refused to expel. The patient was intelligent. Her pelvis was contracted by prominence of the sacrum. Three labors had been normal, and only lasted some two hours each; a fourth had been more lingering, and a very big child was delivered at term. Labor pains, very distinct, set in at term in the fifth pregnancy. For three hours the uterine contractions were strong and regular; then the intervals grew longer and the pains weaker, until they ceased. When 302 days had elapsed after the last period Stahl found the patient inconvenienced by the great size of the abdomen, so he turned and delivered a very well-developed fetus, which was alive at the beginning of the deliv-

ery. The prominent sacrum gave great trouble; the perineum was badly torn owing to the great size of the fetal head; ossification of the cranial bones had advanced very far, and made the parts incompressible. The fetus weighed 12 pounds 8 ounces, the placenta and membranes 2 pounds. The measurements of its head were: Circumference, 16 inches; occipito-frontal diameter, 5.8 inches; bi-parietal, 5.2 inches; bi-temporal, 4.6 inches. The perineum and the rent—nearly an inch long—in the rectum were sewn up at once, and the mother made a good recovery. No uterine disease nor rectal trouble ensued.

THE TREATMENT OF PUERPERAL CONVULSIONS WITH VERATRUM VIRIDE.

It was an interesting and profitable discussion that followed Dr. Charles Clifford Barrow's recent accounts of two cases of puerperal convulsions in the treatment of which the use of veratrum viride had played an important part. It took place at a meeting of the Society of Alumni of Bellevue Hospital, held on October 2, and a report of it is presented in this number of the Journal. Dr. Barrow properly laid stress upon the use of veratrum viride in the treatment of puerperal convulsions—not that he fancied it was new, but rather, we presume, that it seemed in danger of being forgotten, for he says, except for its enthusiastic advocacy by the late Dr. Fordyce Barker, he had not noticed that it was generally appreciated except in the Southern States. The discussion shows at least that the gentlemen who took part in it had not ignored the title of the remedy to be ranked high among the means of controlling the convulsive disorder under consideration.

Dr. Edgar's declaration that he did not believe there was any drug, with the possible exception of chloroform, that was of as much value as veratrum viride in eclampsia, coupled with Dr. Chandler's testimony to its efficiency, goes far to show that experienced obstetricians in general are less forgetful of the virtues of

veratrum than its comparative inconspicuousness in current literature might lead one to suppose was the case. It is very sure that an overwhelming preponderance of our therapeutical resources does not reside in the novelties that have been introduced so profusely within the last few years—perhaps no preponderance at all. Although, not to mention the wholly novel medication to which bacteriological study has given rise, all our pure hypnotics and all our pure antipyretics have been known but a few years, it is much to be doubted if we have come to a knowledge within the last twenty-five years of a greater number of potent curative medicinal agents than were known before. It is natural and inevitable that the new drugs should figure more prominently than the old ones in periodical literature. We would not have it otherwise, for that would be a poor literature that should keep on reiterating well-known facts. There is room for discrimination, however; it is hardly to be gainsaid that occasionally a particular use of an old drug is in danger of being forgotten, and when that is the case a distinct service is rendered by whoever calls attention to it so pointedly as Dr. Barrows has to the value of *veratrum viride* in combating so fatal and frightful a disease as puerperal eclampsia. Such a course sets those who may have been forgetful or skeptical to making new trials of the agent in question, and may lead either to an undeniable confirmation or to a wholesome refutation of the convictions of our predecessors. It tends to certainty in therapeutics, which is the grand aim of medicine.—N. Y. Med. Journal.

WHEN MAY GONORRHEICS MARRY?

The question when may syphilitics marry has been often discussed and answered. The inquiry now is turned toward the victims of chronic gonorrhea. Dr. Lowenhardt asserts that the prospective bridegroom should be subjected to repeated examinations in order to determine the presence or not of the gonococcus. A slight se-

cretion is not sufficient for this purpose, but the urethral mucosa must be irritated in such a manner as to place it in analogous condition (excess in *baccho et venere*) to those which light up an indolent case. The best means to obtain this result is to inject a few drops of a one-fifth per cent. solution of silver nitrate. If, then, the secretion contains no gonococci, but is strictly made up of epithelial cells, marriage can be permitted. The presence of numerous pus corpuscles necessitates renewed examinations and treatment of this pseudo-gonorrhea. Lowenhardt insists upon the fact that the gonococcus is alone responsible for the virulence of the exudate and the serious results that follow inoculation with it in the genital apparatus of women.—N. Y. Med. Record.

ANTITOXIN TREATMENT OF SYPHILIS.

Dr. Vievorovsky has been employing antitoxin serum in the treatment of syphilis, in the Moscow Military Hospital, and claims to have observed most satisfactory results.

Miscellany.

There is no malarial parasite, says Surgeon Lawrie, of the British Indian Medical Service. He affirms that the microscope is misleading and useless in the diagnosis of malaria, and that there is no parasite in the blood in that disease. "There is nothing in pure blood but hemocytes and leucocytes—red corpuscles and white cells." The so-called parasite of malaria is nothing more than the blue-stained nucleus of the white blood-corpuscle. It is stated, further, that the appearances which Laveran and others have pronounced to be malarial parasites are to be found in the blood in health and disease.

VARICOSE VEINS.

Instruct the patient to carry always a tight ball. In case of rupture and consequent hemorrhage it re-

quires no skill to apply the ball to the point of rupture and bind down tightly with the handkerchief. This will in all cases preserve life and strength until the arrival of the physician.—Hirst, Medical Record.

NAVY CHANGES.

Changes in the Medical Corps of the United States Navy for the week ending November 23, 1895:

November 19—Medical Director P. S. Wales ordered to duty as member of the Retiring Board, Washington, November 25, in addition to his present duties.

November 22—Passed Assistant Surgeon R. P. Crandall detached from the Naval Laboratory and ordered to the Naval Hospital, New York.

Passed Assistant Surgeon Philip Leach detached from the Naval Hospital and ordered to the Naval Laboratory, New York.

I have used Cactina Pellets for several years past, with the most satisfactory results, in such cases wherein they are indicated.—A. H. Ohmann-Dumesnil, A. M., M. D., St. Louis.

Wayside Notes.

By ERNEST B. SANGREE, A. M., M. D.

The other day I had an interesting case showing heredity in vascular weakness and degeneration. It was that of a very robust, but rather heavy and florid-looking gentleman of 33. His father, his grandfather and his great-grandfather had all died of apoplexy, and his father's mother suddenly of heart disease. On his mother's side there was no history of arterial degeneration. When 12 years of age the applicant had a sudden sunstroke while up a cherry tree, fell down unconscious and remained so from acute meningitis for some five weeks. When 15, another boy struck him on the forehead with a good-sized stone. Again he fell unconscious and lay for six weeks, with acute inflammation of the brain membranes. At 19 he had diphtheria, followed by acute nephritis of the most violent

kind, so that his life hung by a thread. A small sister of 5 fell, striking her head on the floor. In a few days she went into fatal convulsions, doubtless from brain pressure due to ruptured blood vessels, as a purple area appeared after death over the spot of injury. Another child could probably have received the same fall without anything more than temporary injury, but in this case the lesion was beyond nature's ability to repair.

BOOKS AND PAMPHLETS RECEIVED.

Surgical Treatment of Laryngeal Tuberculosis. By J. W. Gleitsmann, M. D. Reprinted from N. Y. Medical Journal.

Hyperthermy in a Man up to 148 Degrees F. By A. Jacoby, M. D. Reprinted from the Transactions of the Association of American Physicians, 1895.

Official Management of Dangerous Communicable Diseases. Printed by the Board of Health, Philadelphia.

Epidemic Influenza—1889 to 1895. By W. L. Stowell, M. D. Reprinted from Archives of Pediatrics.

"The History of Oratory from the Age of Pericles to the Present Time," by Professor Sears, of Brown University, will soon be published by S. C. Griggs & Co. It purports to give a connected account of the origin and growth of oratory as an art and as a science—especially of forensic, deliberative and patristic oratory—and shows that there is a philosophy of discourse based on mental and moral action, and exemplified in the successes and failures of representative orators through many centuries. The general principles of public speaking are given, with some conception of its highest attainments.

It is believed that no other work has attempted to give the art, the history, in a single volume, thus making this book of more than ordinary value to clergymen, lawyers and public speakers of every description. The sound scholarship of its author should make it especially available for use by students of oratory in the larger universities and colleges.